

## The Diagnostic Features of Mammary Gland Lesions in Ultrasound Elastography

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About 60000 new cases of breast cancer are revealed in the world every year. This figure may increase to 1,65 million of cases to 2015. At present breast cancer makes up more than 22% of all malignant neoplasms in women. The number of women with other pathologic processes of benign forms is 25-30 times is higher than that with cancer.

**The aim of research** is to define possibilities of elastography in differential diagnostics of nodes and cysts with heterogeneous thick contents (complex cysts) of the mammary gland.

**Materials and methods** 47 patients at the age of 19-65 were examined. Research was carried out on “Mindray DC-8” apparatus in  $\beta$ -regime and elastography of colour code regime.

**Results.** According to our research benign forms were revealed in 42 patients:17 cases had complex cysts, 14 patients had fibroadenoma, 3 – had intraduct papilomas, 5 patients had lipomas. Malignant tumors were detected in 5 patients and intraduct adenocarcinoma was detected in 3 cases. 2 cases had adenocystic carcinoma. Tumor pathology was excluded in 3 cases: cicatrix changes were defined during ultrasound investigation in 1 case, post-surgical hematoma was seen in 1 case, intramammary hyperplastic lymphonodus was observed in the other case.

All diagnoses were confirmed by cytologic or histologic investigation. Complex cysts were mapped as formations of mosaic structure with prevalence of green and red staining. Lipomas were defined as formations of green colour. Fibroadenomas in elastogram regime looked like formations with mixed code type, with the prevalence of elastic parts of green colour and single dense parts of blue colour; in the structure of 4 cases fluid parts of red colour were defined.

Malignant formations in 3 cases in colour regime were presented as dense tissue of blue colour. In 2 cases malignant tumors were presented as formations without clear contours of blue colour, it testifies to the nature of infiltrating growth. In the post traumatic change in the  $\beta$ -regime we observed echodense focus with acoustic shadow and with elastography the formation was mapped by green colour that testified to the low hardness. The hematoma was defined as the formation of a mixed type with a predominance of three coloured pieces and elastic green or grey colours. Not altered lymph node was coded in colour mode by elastic green or gray colours.

**Conclusions.** Elastography is a convenient and easy to use method of differentiation of benign and malignant disorders of the breast. It contributes to an earlier diagnostic occurrence of signs of malignancy. Besides the introduction of this method into clinical practice would reduce the number of unnecessary biopsies and duration of the subsequent medical monitoring.

## Psychological dependence of features of indices of cerebral blood flow in patients with chronic obstructive pulmonary disease at different stages of formation of chronic pulmonary heart

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**Abstracts.** The study involved 107 patients with chronic obstructive pulmonary disease (COPD) at different stages of formation of chronic pulmonary heart disease (CPH). The relationship between